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AUTHOR Bonivillain, Nancy
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ABSTRACT

This paper presents an analysis of the meanings and uses of two reflexive morphemes in the Mohawk language. Reflexive "atat" is shown to have both reflexive and reciprocal meanings. It is also realized in kinship terms and in the transitive pronominal prefix "yutat." Semi-reflexive "at" has some reflexive functions, and can mark middle voice and detransitivized states or processes. Additional uses of "at" are also examined. The paper concludes with a discussion of comparative data on reflexives in other Iroquoian languages. Contains 30 references. (MDM)

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REFLEXIVES IN MOHAWK

Nancy Bonvillain

Abstract: This paper presents an analysis of meanings and uses of two reflexive morphemes in Mohawk. 'Reflexive' *-atat-* is shown to have both reflexive and reciprocal meanings. It is also realized in kinship terms and in the transitive pronominal prefix *-yutat-* she, one:her, one. 'Semi-reflexive' *-at-* has some reflexive functions. It can also mark middle voice and detransitivized states or processes. Additional uses of *-at-* are exemplified. The paper concludes with discussion of comparative data on reflexives in other Iroquoian languages.

Introduction

The reflexive morphemes in Mohawk, *-atat-* reflexive and *-at-* semi-reflexive, each have several semantic and grammatical functions. Some of these are clearly reflexive, i.e. indicating actions or processes which affect the subject of the verb in which they are realized. The reflexive *-atat-* also has reciprocal meanings. It occurs as well in a set of kinship terms with a reciprocal sense. Meanings of the semi-reflexive *-at-* are especially complex. This morpheme can mark a number of different kinds of relations between verb bases and their agents or patients. As will be shown, *-at-* can indicate middle voice, detransitivized processes or states, defocusing of agent, spontaneous occurrences or results, and motion or activity away from subject or from prototypical position. Finally, some verbs obligatorily require the selection of a reflexive morpheme as part of a frozen verb stem. Such verbs often have figurative senses.

This paper will examine meanings and uses of the two reflexives in the Akwesasne dialect of Mohawk, one of six extant Northern Iroquoian languages.[1] Following analysis of the Akwesasne material, comparative data from related languages will be discussed. It will be shown that evidence from Mohawk corroborates some of the hypotheses offerred by Barber (1975) and Shibatani (1985) concerning semantic and grammatical relations among reflexives, middle voice and passives. In other respects, though, Mohawk reflexives display a unique constellation of meanings and functions.

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Mohawk reflexives occur morphologically within verbs, directly following a pronominal prefix and preceding the verb base which itself is composed of a verb root(s) and an optional preposed incorporated noun root. The structure of Mohawk verbs, then, is:
modal and non-modal prefixes + pronominal prefixes + reflexive or semi-reflexive + noun root + verb root + verbal suffixes.

Only the pronominal prefix and verb root are obligatory categories for all verbs. However, non-imperative verbs (and many imperatives) contain a verbal suffix or suffixes usually marking at least aspect and potentially other kinds of meanings. Most non-habitual verbs contain one of the modal prefixes. Other prefixes express additional meanings.[2] If reflexives are selected, only one of the two is possible, i.e. either *-at-* or *-atat-*. The meaning and uses of these morphemes are discussed and exemplified below. Examples of the reflexive and semi-reflexive are given, with illustration of their contrastive semantic and grammatical functions. The Mohawk data is then discussed in light of other research concerning reflexives, middle voice and related grammatical constructions. Finally, comparative material from other Iroquoian languages is discussed, with a brief note of Caddoan.

Three different sets of pronominal prefixes exist in Mohawk, all of which can co-occur with reflexives although certain verbs constrain the selection of particular classes. The three sets have, in the Iroquoian literature following Lounsbury 1953, traditionally been labelled subjective, objective and transitive. Transitive prefixes express both agent and patient in one form, eg. *-khe-* 'I:her,' *-luwa-* 'she,one:him' as in *khenù:we?s* 'I like her,' *luwanù:we?s* 'she likes him.' Subjective prefixes mark the grammatical subject (semantic agent) of a transitive verb while objective prefixes mark the grammatical subject (semantic patient) of an intransitive verb as well as the object of a transitive verb having an inanimate or 'feminine neuter' subject.[3] When the meaning of the reflexive morpheme is narrowly reflexive, i.e. action by agent toward him/herself, then transitive prefixes cannot occur for obvious semantic reasons since they necessarily express a transitive relationship between non-co-referential entities.

As will be shown, some verbs require the reflexive or semi-reflexive exclusively while other verbs may select one or the other, with a significant change in

meaning.

Reflexive *-atat-*[4]

Transitive reflexive meaning: The reflexive *-atat-* most often expresses a transitive action in which agent and patient are co-referential, i.e. action toward self. In such instances, the pronominal prefix co-occurring with *-atat-* must come from the subjective class; subjects therefore are agents. For example:[5]

1a. wa?ká·tathlene?
wa?-k-atat-hlen-e?
fact-I-rfx-cut-asp
I cut myself (eg. with a knife)

1b. Compare non-reflexive verbs:
wahuwáhlene?
she cut him (-huwa- she:him)
lahlé·:nas
he's cutting (it); he's a cutter (la- he)

Reflexives can occur in transitive verbs which have incorporated their noun root patients:

2a. wa?tkatatesnuhsò·:lalake?
wa?-t-k-atate-snuhs-o:lalak-e?
fact-du-I-rfx-hand-press-asp
I squeezed, stepped on my own hand

2b. Compare:
wa?thakesnuhsò·:lalake?
he squeezed, stepped on my hand (-hake- he:me)

Reflexives are also used in combination with benefactives in verbs where a transitive action denotes a result for agent:

3. wa?katathní·:nu?se? akyà·:tawi?
wa?-k-atat-hni:nu-?s-e? + akya:tawi?
fact-I-rfx-buy-bnf-asp + coat, garment, dress
I bought myself a coat

Finally, reflexives appear in verbs denoting emotional states:

4. latatenù·:we?s
l-atate-nu:we?-s
he-rfx-like-asp
he likes himself

Reciprocal meaning: The reflexive *-atat-* has reciprocal meaning in verbs denoting actions of non-singular agents. Since *-atat-* has reflexive meanings as well, its occurrence with non-singular pronominals could potentially be ambiguous. That is, are agents performing action toward themselves or toward each other? Meanings are disambiguated, not by the reflexive which occurs in both cases identically, but rather by inclusion of a dualic verbal prefix -t- (preceding the pronominal) in the composition of reciprocal verbs. The dualic prefix is semantically well-chosen for this function since it expresses the idea that more than one entity participates in the event. For example:

5a. wahyatatkù:lekeʔ
wa-hy-atat-ku:lek-eʔ
fact-they m.du.-rfx-hit-asp
they two hit themselves

5b. waʔthyatatkù:lekeʔ
waʔ-t-hy-atat-ku:lek-eʔ
fact-du-they m.du.-rfx-hit-asp
they two hit each other

5c. waʔkyakyatátkwahteʔ
waʔ-k-yaky-atat-kwaht-eʔ
fact-du-we du.excl.-rfx-bump-asp
we two bumped into each other

Reciprocal usage in 6a. below contrasts with a non-reflexive form in 6b:

6a. wakatsenú:niʔ ǰiʔ tusaʔkyatátkʌʔ
wak-atsenu:niʔ tu-s-a -ky-atat-kʌ-ʔ
I-be happy-asp that du-rep-fact-we du.incl.-rfx-see-asp
I'm glad that we two saw one another again, I'm glad that we two met again

6b. wakatsenú:niʔ ǰiʔ saʔkú:kʌ
I'm glad to see you again (-ku- I:you)

If the verb base *-atatkʌ-*, containing the reflexive, occurs with a non-singular agent but without the dualic, then a reflexive meaning is conveyed:

6c. ká:ts yekyatátkʌʔ
yɔ-ky-atat-kʌ-ʔ
trns-we du. incl.-rfx-see-asp
Come, let's look in the mirror!

Since this verb lacks the dualic, it must mean 'let's look in the mirror (at ourselves)' rather than 'let's look at each other.'

Figurative uses: The reflexive *-atat-* often occurs in verbs which have taken on figurative meaning, denoting events which are not literally transitive. In some cases, a reflexive meaning is still semantically isolable and obvious whereas in others it has become submerged as part of a verb with a unified figurative sense. Several examples follow, contrasted with non-reflexive verbs:

7a. skatateʔnikuhlʌhtʌ́:nis
s-k-atate-ʔnikuhl-ʌ-ht-ʌ:ni-s
rep-I-rfx-mind-happen-cs-bnf-asp
I make myself forget (I cause to happen to my mind)

7b. sewakeʔnikúhlʌ
I forgot (-wake- I)

8a. tewatatelihwanelakhselá́hlos
tew-atate-lihwa-nelak-hsela-hl-o-s
we pl.incl.-rfx-idea-bad-nom-coat-be,put in water-asp
we all stain ourselves with sin (we put a liquid coating of bad ideas on ourselves)

8b. wahsatatkuhtselá́hluʔ
wa-hs-atat-kuht-sela-hl-uʔ
fact-you-rfx-paint-nom-coat-asp
you got paint on yourself

8c. lá́hlos okúhtselaʔ
he's painting (it) (he's coating + paint)

9a. yaʔkatatewʌní:yohsteʔ
y-aʔ-k-atate-wʌn-i:yo-hst-eʔ
trns-fact-I-rfx-word,sound-be good,nice-cs-asp
I helped myself over there (eg. took something from my neighbor's house)(I caused, made the word good)

9b. lowʌniyóhstuʔ
he gave his full consent (-lo- he)

10a. yakotateʔnikuhlotákwʌ
yako-tate-ʔnikuhl-ot-akw-ʌ
she-rfx-mind-put in-rvrs-asp
she is tempted (she takes her mind out, it

takes her mind out)

10b. li?nikuhlotákwas
I tempt him (-li- I:him)

11a. sahatathlé:wahte?
s-a-h-atat-hle:waht-e?
rep-fact-he-rfx-punish-asp
he's sorry for it, sorry about it (he punished himself)

11b. í:kehle? ausakatathlé:wahte?
i:-k-ehl-e? au-sa-k-atat-hle:waht-e?
**-I-want-asp opt-rep-I-rfx-punish-asp
I want to take out a pledge, make a pledge (eg. to abstain from wrong behavior)

11c. sasatathlé:waht
sa-s-atat-hle:waht
rep-you-rfx-punish
repent! ask for forgiveness! (punish yourself)

11d. í:kehle? ausakoyatathlewáhtʌ
i:-k-ehl-e? au-sa-koy-atat-hlewaht-ʌ
**-I-want-asp opt-rep-I:you-rfx-punish-asp
I want to ask your forgiveness

In 11d., *-atat-* co-occurs with a transitive pronominal, *-koy-* 'I:you.' The reflexive is not referenced semantically to the entire pronominal but only to the agent 'I.' The verbal construction, then, has an underlying meaning approximating 'I want to ask you that I punish myself.'

Kinship terms: The reflexive *-atat-* appears in the formation of several kinship terms. All Mohawk kin terms are structurally verbs, each containing a pronominal prefix, verb root and aspect suffix. The verb root denotes an underlying consanguineal or affinal meaning while the pronominal prefix indicates a specific status relationship between speaker and referent (or addressee). Most terms select transitive prefixes marking agent/patient co-relations. The elder person in the kin pair (whether speaker or referent) is expressed as agent while the younger is patient. For instance, *khe?kʌ́:?a?* 'my younger sister' (*khe-* I:her), *laksótha?* 'my grandfather' (*lak-* he:me).

Another set of kin terms selects subjective + reflexive pronominals. These express equality and/or

unity of the named kinsperson and the speaker. The subjective pronominal is first person dual, *yaky-*, when reference is to one relative (speaker + relative) and is plural, *yakw-*, when two or more relatives are named (speaker + relatives). The morpheme *-atat-* marks the co-relationship as reciprocal. Such kin terms include:

12a. yakyatatenúhkweʔ
yaky-atate-nuhkw-eʔ
we du.-rfx-be kin-asp
we two are related, we're relatives, s/he is my relative, my relative

12b. yakwatateʔkʌ́:ʔa
yakw-atate-ʔkʌ:-ʔa
we pl.-rfx-have a younger sibling-asp
my siblings, we are all siblings

12c. yakyatakyʌ́:ʔa
yaky-atak-yʌ:-ʔa
we du.-rfx-have as child-asp
me and my daughter or son or mother or father (any group of two of us, parent and child)

Similar kin terms can be constructed with third person dual or plural subjective pronominals + reflexive in reference to relatives of another person. Among these are:

12d. kyatateʔkʌ́:ʔa
ky-atate-ʔkʌ:-ʔa
they f.du.-rfx-have a younger sibling-asp
her sister

12e. lutakyʌʔsú:ʔa
lu-tak-yʌ-ʔsu:ʔa
they m.pl.-rfx-have as child-many,diverse
they are parent(s) and child(ren) (group of three or more)

Finally, although most kin terms have the same basic construction in reference or address (except for change in the aspect suffix, eg. *laksótha*ʔ 'my grandfather,' *lákso* 'grandfather!'), a revealing optional form exists for sibling address terms. Instead of the transitive pronominals khe- 'I:her' or li- 'I:him,' the subjective prefix expressing first person dual inclusive + reflexive is possible:

12f. shé:ku kyatatè:kʌʔ
ky-atate:-kʌ-ʔ

we du.incl.-rfx-have as younger
sibling-asp
hello sister! hello brother!

This usage has an obvious pragmatic rationale, signifying, as it does, a reciprocal social relationship between speaker and addressee.

Transitive pronominal *-yutat-*: The reflexive *-atat-* occurs in the composition of the transitive pronominal prefix *-yutat-* which expresses feminine indefinite agent 'she,one' and a non-identical feminine indefinite patient, 'her,one' (see note 3). This pronominal consists of the subjective marker *-ye-* she,one + reflexive *-atat-* and undergoes regular Mohawk morphophonemic changes whereby ye ⟶ yu/___a with subsequent loss of -a-. For example, *yutatenu:we s* 'she likes her,' *yutateku:leke* 'she will hit her.'

These words, and others similarly formed, are ambiguous between transitive and reflexive meanings since the transitive pronominal is internally composed of subjective -ye- + reflexive -atat-. For instance, ʌ*yutatekù:leke*ˀ can mean 'she will hit her' or 'she will hit herself.' The two senses can be disambiguated contextually or lexically for a transitive meaning by specifying referents. In such constructions, agents precede verbs while patients follow:

13a. katelí ʌyutatkù:lekeˀ neˀ sesí
Catherine will hit Cecelia

13b. katelí ʌyutatkù:lekeˀ né:ˀe
Catherine will hit her

13c. akáuha ʌyutatkù:lekeˀ né:ˀe
she's the one who will hit her

Reflexive meaning cannot be specified lexically since Mohawk does not have a separate word for self. However, if only an agent is realized, as in *kateli* ʌ*yutatkù:leke*ˀ , the construction is given a reflexive rather than transitive reading, i.e. 'Catherine will hit herself.'

Semi-reflexive *-at-*:

Semi-reflexive *-at-* has a number of meanings and usages. The semantic connection among its various senses is not easily summarized. Some occurrences have a reflexive meaning in which agent (if subjective) or

patient (if objective) is instigator or experiencer. Other uses of *-at-* indicate a kind of middle voice. One such use encodes the "involvement" (Barber 1975:17) of subject in the action. In these verbs, the subject "performs the action but also receives some benefit" or is in some other way affected by their action (ibid:19). Another kind of middle voice signalled in Mohawk by -at- occurs in verbs in which an agent is assumed but not explicitly marked. In these verbs, agents are defocused and ultimately suppressed, raising patients to subject. In such detransitivized verbs, objective pronominals (expressing patient subjects) are employed.

In addition to these functions of -at- which relate in some way to voice, -at- can occur in verbs denoting a spontaneous occurrence or state. Another use of -at- is to mark activity or movement away from agent or prototypical position. Finally, some verbs require inclusion of -at- as part of a frozen verb base. These verbs never occur without -at- and therefore are not contrastive. Throughout this section, contrastive examples will be given where possible.

One usage of *-at-* signifies a reflexive event in which an agent acts toward him/herself. These verbs have transitive bases, although some have been detransitivized and function as intransitives. Figurative senses can be produced by this use of *-at-*:

14a. wahatáhsehteʔ
wa-h-at-ahseht-eʔ
fact-he-srfx-hide-asp
he hid himself

14b. waʔúhsehteʔ
she hid it (-u- she,one)

15a. waʔthyateʔkháhshiʔ
waʔ-t-hy-ate-ʔkhah-shi-ʔ
fact-du-they m.du.-srfx-border-undo-asp
they two separated, divorced

15b. waʔtkeʔkháhshiʔ
I took it apart, separated it (into two pieces; -ke- I)

16a. isenekwá satháʔwiht
ise-nekwa s-at-haʔwiht
there-direction you sg.-srfx-slide,move
slide over there! move over there!

16b. kʌhnewká waʔehá:wihteʔ
she moved, slid it over here (without picking it up; -e- she,one)

17a. wahatelákwʌ
wa-h-ate-lakw-ʌ
fact-he-srfx-choose-asp
he kept it (chose it for himself)

17b. with incorporated noun root, -wil- 'baby' 'adopt':
waʔkatewilalákwʌ
I adopted her (chose baby for myself)

17c. wahalákwʌ
he chose it (-ha- he)

Closely associated semantically with a direct reflexive meaning, the semi-reflexive can be used to indicate greater involvement, energy-expenditure or concentration of agent in an event as compared to non-reflexive verbs. In these examples, subjects accomplish an act by themselves or accomplish an act which absorbs their energy:

18a. yuthnawelú:niʔ
yu-t-hnawel-u:ni-ʔ
she,one-srfx-well-make,build-asp
she's digging, making a well (by herself)

18b. yehnawelú:niʔ
she's digging a well (someone, unspecified is helping her; ye- she,one)

19a. tesatohtáhlos kʌʔ
te-s-at-ohtahlo-s
du-you sg.-srfx-clean-asp + int
are you cleaning up? (implies a big job)

19b. tesohtáhlos kʌʔ
are you tidying up? (-s- you)

The following sentence, using the verb *-ohale-* 'wash' is directly contrastive for the semi-reflexive:

20. waʔkatenuhsóhaleʔ náhkweʔ thonó:nʌ
waʔ-k-ate-nuhs-ohale-ʔ first then
fact-I-srfx-house-clean-asp

waʔkeksohalényuʔ
waʔ-ke-ks-ohale-nyu-ʔ
fact-I-dish-clean-dst-asp

I washed the floor first, then I washed the dishes

Here, washing a floor inherently requires more energy, time, etc. than washing dishes and therefore selects the semi-reflexive.

An important use of -at- marks a kind of detransitivized event or state derived from a verb whose basic non-reflexive meaning is a transitive action. These are middle voice or passive constructions. They involve a "decrease in semantic valency [of an agent], to the extent that no agent is posited" (Shibatani 1985:839). In Mohawk, morphologically or syntactically-marked passive constructions do not occur. Instead, one function of the semi-reflexive is to express middle voice or detransitivized meanings. Therefore, some shifts in transitivity or voice are realized through use of -at-

The semi-reflexive co-occurs with animate patients (in objective case) to indicate a passive experiencer of an event or process. Agents are suppressed. Figurative senses can be produced by such use of -at-. The following examples contrast verbs containing -at- and non-reflexive transitives employing the same verb roots:

21a. wa?tewakatenuhyaníhtʌ
wa?-te-wak-ate-nuhyaniht-ʌ
fact-du-I-srfx-exaggerate,be extreme-asp
I was shocked (it was exaggerated, extreme to me)

21b. tehanuhyaníhta?
he's an exaggerator (-ha- he)

22a. yakotejilʌ́htu?
yako-te-jil-ʌ-ht-u?
she,one-srfx-burning cinders-fall,drop down-cs-asp
she is damned in hell, she's gone down into the fire

22b. ya?kjí:lʌhte?
I made burning cinders drop down (eg. into a stove; -k- I)

23a. wakate?nikuhliyóhstu?
wak-ate-?nikuhl-iyo-hst-u?
I-srfx-mind-be nice,good-cs-asp
I'm being patient (I'm making my mind nice, good)

23b. wʌhniseliyóhste?
she makes the day nice (w- she,it; -ʌhnisel- day)

The verb base in 23a. -ʔ*nikuhliyo*- 'be nice-minded,' can contrast with a non-reflexive, non-causative construction. When the base co-occurs with -at- + causative (23a.), it describes a specific event entailing an on-going state which may or may not have preceded or be expected to endure. However, when both affixes are lacking, eg. *wake*ʔ*nikuhlí:yo*ʔ 'I'm patient (my mind is nice, good)' the verb denotes a generalized state of being or an inherent characteristic.

When -at- co-occurs with inanimate patients as grammatical subjects (marked by objective pronominals), verbs denote results of processes. Agents are suppressed; patients fulfill semantic roles as experiencers. In these cases, verbs are either in punctual aspect, indicating a single event, or in perfective state aspect, indicating a generalized resultant state:

24a. yeyotelò:luʔ
ye-yo-te-lo:l-uʔ
trns-she,it-srfx-gather-asp
it's gathered, accumulated there

24b. selò:lok
gather it! (se- you)

25a. ʌsewatelíhshiʔ
ʌ-se-w-ate-lihsh-iʔ
fut-rep-she,it-srfx-undo-asp
it will be undone

25b. ʌsewatuhwʌǰalíhshiʔ
the world will become undone (-at- srfx; -uhwʌǰa- 'world, earth')

25c. sahalíhshiʔ
he undid it (-ha- he)

The semi-reflexive can be employed to mark an activity which occurs spontaneously or a state which results from unspecified, spontaneous conditions.[7]

26a. waʔkutehyá:luʔ
waʔ-ku-t-ehya:l-uʔ
fact-they f.pl.-srfx-grow, raise-asp
they all grew up

26b. sehyá:luʔ
make it grow! raise it! (s- you)

26c. í:ʔi waʔkheyehá:luʔ
I raised her, I'm the one who raised her
(i:ʔi I; -khey- I:her)

27a. teyokyà:kuʔ
te-yo-k-ya:k-uʔ
du-she,it-srfx-break in two pieces-asp
it's broken (into two pieces)

27b. úʔkyaʔkeʔ
uʔ-k-yaʔk-eʔ
fact-she,it-srfx-break-asp
it broke

The verb in 27a. denotes breaking but does not specify an agent. It implies that an event occurred without an immediately direct agent although some agent may be responsible for starting the process of breaking. This word could be used, for instance, to describe the breaking off of a pole in the ground which rots and finally breaks at ground level (into two pieces).

The verb root *-yaʔk-* 'break' can co-occur with incorporated noun roots in either semi-reflexive or non-reflexive constructions indicating a contrast between a spontaneous result without stated agent (semi-reflexive) and a direct action with explicit agent (non-reflexive). Compare the following verbs having animate subjects:

27c. wahanitáhsyaʔkeʔ
wa-h-an-itahs-yaʔk-eʔ
fact-he-srfx-tail-break-asp
his tail broke off, fell off

27d. wà:kehleʔ waʔtkačínyaʔkeʔ
I thought I broke my leg (-ka- I; -čin- leg)

A further use of *-at-* is attested in verbs denoting change in body position away from the prototypical position of upright posture, eg. sit down, kneel down. In these cases, the semi-reflexive verb emphasizes the process of changing position while the non-reflexive verb signifies the resulting state:

28a. waʔtkatʌtsó:tʌ
waʔ-t-k-at-ʌtso:t-ʌ
fact-du-I-srfx-kneel-asp
I knelt down

28b. teyakʌtskoteʔ

she's kneeling down (-yak- she,one)

29a. sanitskó:tʌ
s-an-itsko:t-ʌ
you sg.-srfx-sit-asp
sit down!

29b. kítskoteʔ seʔ
I am sitting down (k- I; seʔ emphatic)

Another use of -at- which may be related semantically to that shown in 28 and 29 occurs in the differentiation of verbs meaning buy/sell and borrow/lend. In these sets, -at- marks movement of goods away from agent (sell, lend) while the non-reflexive verb denotes movement toward agent (buy, borrow). Compare:

30a. waʔkatʌhní:nuʔ
waʔ-k-atʌ-hni:nu-ʔ
fact-I-srfx-buy-asp
I sold it

30b. waʔehní:nuʔ
she bought it (-e- she,one)

31a. wahatʌníhaʔ
wa-h-atʌ-ni-haʔ
fact-he-srfx-borrow-asp
he lent it out

31b. wahaníhaʔ
he borrowed it (-ha- he)

The semantic similarity between these examples and those in 28 and 29 is suggested by the fact that in both sets the semi-reflexive marks verbs which encode "movement away", i.e. movement away from agent (sell, lend) or away from prototypical human position (sit down, kneel down).[8]

In constructing some transitive verbs, realization of -at- is correlated with incorporation of a noun root indicating direct object. These usages can be literal or figurative:

32a. waʔkatenaʔtalú:tʌ
waʔ-k-ate-naʔtal-u:t-ʌ
fact-I-srfx-bread-put in, attach-asp
I baked bread (put bread inside)

32b. waʔkú:tʌ

I attached it, put it inside (-k- I)

33a. lanijatóʔlats
l-an-ij-ato:lat-s
he-srfx-fish-hunt-asp
he's a fisher, he fishes

33b. latelihwatóʔlats
l-ate-lihw-ato:lats
he-srfx-idea-hunt-asp
he's a gossip, he gossips

33c. yutóʔlats
she's a hunter, she hunts (yu- she,one)

34a. kwah ukwatelihwáhtuʔseʔ jiʔ nahó:tʌ waʔkyóhteʔ
ukw-ate-lihw-ahtu-ʔs-eʔ waʔ-k-yoht-eʔ
very fact+I-srfx-idea-lose-bnf-asp what fact-I-work-asp
I lost interest in what I was doing

34b. ukwáhtuʔseʔ
I lost it, it disappeared to me (ukw- fact+I)

Reflexive/semi-reflexive contrasts

Some verbs can select either *-atat-* or *-at-*. Significant semantic changes in the unitary meaning of words result from realization of each morpheme. Several comparisons follow. In the first, verbs entail differences in passive or active role of subjects. In 35a., with semi-reflexive -at-, the subject undergoes a process while in 35b., with reflexive -atat-, she initiates the process which affects her reflexively. This contrast highlights use of -at- in a middle voice construction while -atat-is employed for reflexive meaning. Furthermore, the semi-reflexive verb signals less control on the part of subject or experiencer (see Jelinek and Demers 1983 for discussion of middle-passives and lack of control.)

35a. wakathkalú:niʔ
wak-at-hkal-u:ni-ʔ
I-srfx-suffer-make-asp
I had a misfortune, a misfortune happened to me

35b. yakotathkalunihákyeʔ
yako-tat-hkal-uni-hakye-ʔ
she,one-rfx-suffer-make-prog-asp
she continually, repeatedly brings misfortunes

on herself

Another example of contrast between active, voluntary instigation, marked by *-atat-*, and unspecified, uncontrolled endurance of a process, marked by *-at-*, involves the verb root *-uni-* 'make, build.' With neither reflexive prefix, the verb denotes a transitive action, eg. *hlu:ni* 'he'll build it' (-hl- he). The verb with -at- (36a.) denotes a spontaneous event or state with suppression of agent while -atat- (36b.) indicates controlled, deliberate activity:

36a. katú:niʔ
k-at-u:ni-ʔ
I-srfx-make-asp
I am born

36b. kwískwis yakotatú:niʔ
yako-tat-u:ni-ʔ
pig she,one-rfx-make-asp
she made herself into a pig

This sentence has a number of associated usages: she dressed up like a pig; she turned herself into a pig (she's a witch and transforms her bodily form); she eats like a pig. The verb in 36b. can further contrast with a semi-reflexive form, highlighting the significant difference in activity. In 36c., the agent is defocussed:

36c. kwískwis lotú:ʔu
lo-t-u:-ʔu
pig he-srfx-make-asp
he became a pig, turned into a pig, was made into a pig

In both 36b. and 36c., the subject is expressed as patient (with objective pronominals), indicating that s/he experiences the result of an action or process. However, in 36b., with -atat-, the patient voluntarily undergoes the process, in fact causing it to happen, whereas in 36c., with -at-, the patient is a passive experiencer.

In the next contrasting set, differences among the verbs seem to entail more focussed concentration and self-involvement in reflexives (37c., 37d.) as compared to non-reflexives (37a., 37b.) and a deeper internalization and affective state in the reflexive (37d.) as compared to a semi-reflexive (37c.):

37a. se⁷nikù:lalak
se-⁷niku:l-al-ak
you sg.-mind-watch,guard-cont
be careful!

37b. tehi⁷nikúhlale⁷
te-hi-⁷nikuhl-al-e⁷
du-I:him-mind-watch,guard-asp
I'm bothering, disturbing, worrying, pestering him

37c. wakate⁷nikù:lalʌ
wak-ate-⁷niku:l-al-ʌ
I-srfx-mind-watch,guard-asp
I was careful about it, guarded it, watched out for it

37d. tewakatate⁷nikúhlale⁷
te-wak-atate-⁷nikuhl-al-e⁷
du-I-rfx-mind-watch,guard-asp
I'm worrying, I worried about it.

A final contrast presents verbs containing the base for 'lock,' *-nyʌthahlok-*. Without reflexive morphemes, the verb has a simple transitive sense, eg. *ʌhanyʌ-tháhloke⁷* 'he'll lock it.' With -at- and an inanimate patient as subject (38a.), the verb denotes a spontaneous, uncontrolled event in which the agent is defocussed. It refers to self-locking, as when a lock repeatedly gets stuck or is locked without animate intervention:

38a. watenyʌthahloks
w-ate-nyʌthahlok-s
it,she-srfx-lock-asp
it keeps locking itself

Next, compare the following two verbs with animate agents. The first, 38b., contains -at-; 38c. contains -atat-:

38b. wa⁷katenyʌthahloke⁷
wa⁷-k-ate-nyʌthahlok-e⁷
fact-I-srfx-lock-asp
I locked myself in

38c. wa⁷katatenyʌthahloke⁷
wa⁷-k-atate-nyʌthahlok-e⁷
fact-I-rfx-lock-asp
I locked myself out

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The contrast here seems to differ from the distinction shown in verbs for buy/sell, borrow/lend and sit down, kneel down (see examples 28 through 31). In those cases, the semi-reflexive contrasted with non-reflexives to indicate movement away from subject (sell/lend) or prototypical position (sit down, kneel down). In 38b., 'I locked myself in,' -at- indicates inward activity or possibly activity toward prototypical place (inside, eg. inside one's house) whereas in 38c., 'I locked myself out,' -atat-, which is a reduplication of -at-, indicates outward activity or activity away from prototypical place.

Discussion

Evidence from Mohawk suggests an association among various functions of reflexives and the creation of middle voice, detransitives and defocusing of agents. Shibatani (1985) demonstrates similar interconnections among these grammatical constructions in a wide sampling of languages from Europe, Asia and the Americas. Shibatani suggests that reflexives and reciprocals are fundamentally related to passives, the prototype of which entails defocusing of agents (1985:837). Since there are often "...semantic and syntactic similarities among passives, reflexives, and reciprocals, for some languages, these similarities are sufficient to permit one form to perform the functions of the others" (ibid:843). In Mohawk, in the absence of distinctive passive formations, reflexive morphemes are sometimes employed to indicate passive meanings, both with animate subjects (eg. 'I was shocked') and inanimates ('it's gathered there').

Shibatani further correlates reflexives with middle-passives which express spontaneous events, denoting activities or states which occur automatically or without intervention of agents (ibid:827). Mohawk -at- fulfills this function as well, eg. 'they all grew up.'

Some Mohawk verbs with semi-reflexives indicate states resulting from actions or processes. Agents may be implied but are not explicitly encoded, eg. 'it broke into two pieces.' Other verbs can have stative surface meanings, eg. 'I'm being patient.' Both Fagan (1988:195) and Keyser and Roeper (1984:383) claim that middle verbs in English are essentially of this type, i.e. statives. Although Mohawk semi-reflexives can signal stative meanings, the morphemes have a wider range of functions. Furthermore, many surface statives such as 'I'm being patient' have underlying transitive bases ('I'm making

my mind nice').

In a study of Koyukon Athapaskan, Thompson (1989) draws a connection among reflexives, reciprocals and passives (and causatives), based on the fact that they are "...involved in constructions related to transitivity" (1989:9). In Mohawk, reflexives are employed to signify transitive actions toward self or to mark detransitivity. Thus, verbs which have basic transitive meanings can be rendered intransitive (eg. 'slide, move over there!').

Finally, Jelinek and Demers (1983) suggest a use of middle voice to mark "...less control on the part of the subject of the sentence" in some Coast Salish languages (1983:182). Some Mohawk examples attest to this function of semi-reflexives as well (eg. 'I had a misfortune'). Such constructions contrast with the responsibility and control signalled by reflexives ('she continually brings misfortune on herself').

For European languages, Barber (1975) describes middle voice as a "...strategy for marking identities between the surface subject and other NPs in the sentence" (1975:17). In middle voice, non-agentive NPs are raised and merged with subjects. Reflexives in Mohawk perform this function in their role to mark actions by subjects which affect themselves or each other. They also mark an action which subject performs for his/her benefit. Indeed, one of Barber's Greek examples has an exact parallel in Mohawk. Note the following (ibid:18):

hair-oumai moiran
take-mid.voice share
I choose (take for my own benefit) a share

In Mohawk, *wa-h-ate-lakw-* 'he kept it (chose it for himself)' is formed on the same principles.

Barber points out that middle voice, reflexive, reciprocal and passive constructions all share a semantic feature which distinguishes them from true active voice, i.e. they all refer to events in which subjects are somehow affected by their actions (ibid:20). In true actives, in contrast, subjects are not affected by their actions.

However, the ways in which reflexives and other constructions affect their surface subjects differ. In reflexive formations, subjects affect themselves; in

reciprocals, subjects affect each other; and in middle voice and passives, subjects are affected by external agents which may or may not be explicitly mentioned. Some of these distinctions are noted in Mohawk. For example, reciprocal meanings are conveyed by -atat-; reflexive meanings are signalled by either -atat- or -at-, both co-occurring with subjective pronominals: middle voice and passive meanings are marked by -at- co-occurring with objective pronominals.

The role of -at- as an indicator of voice is a demonstration of Hopper and Thompson's (1980) theses concerning degrees of transitivity. As they explain, reflexives have "...an intermediate status between one-argument and two-argument clauses" (1980:277). Reflexives are higher in Transitivity than prototypical one-argument clauses (intransitives) yet lower in Transitivity than prototypical two-argument clauses (true transitives). As the data above has shown, the semi-reflexive in Mohawk performs functions which decrease the transitivity of many verbs (eg. I had a misfortune; slide over there!).[9]

Barber suggests that in Indo-European languages, reflexives, reciprocals and passives developed diachronically from middle voice. In these languages, such as English, reflexives and reciprocals arose through the development of specialized pronouns. Middle voice in verbs has become realized through passives (1975:21-22). It may well be that in Mohawk, the reflexive -atat- is a reduplication of and historically derived from the semi-reflexive -at-, the latter morpheme having a productive function in middle voice constructions.

Comparative Evidence

Northern Iroquoian: Mohawk reflexives -atat- and -at- have cognates in all Northern Iroquoian languages. Underlying phonological shapes are identical although some allomorphic rules diverge.[10] In languages most closely related to Mohawk, i.e. the Five Nations of Oneida, Onondaga, Seneca and Cayuga, basic reflexive forms and grammatical functions are the same (see Lounsbury 1953:72-75 for Oneida; Chafe 1967:26-27 for Seneca; Chafe 1970:48-49 and Woodbury 1975 for Onondaga). Lounsbury estimates that these Five Nations languages separated historically from the other Northern branch of Tuscarora/Nottoway approximately two thousand years ago (1978:335). For Tuscarora, Williams (Mithun) describes one reflexive, -at-, which has both reflexive and reciprocal senses, eg. *yakya:tkʌh* 'we two see ourselves'

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or 'we see each other' (1976:160). Evidently, the dualic prefix, which does exist in Tuscarora, is not used to disambiguate these meanings as it is in Mohawk and other Northern Iroquoian languages. Rudes (1981) exemplifies two reflexives in Tuscarora and the closely-related but now extinct Nottoway, earlier spoken in Virginia and known through word lists collected by John Wood in 1820 (1981:27). Allomorphic rules in Tuscarora and Nottoway differ from those of the other Northern Iroquoian languages, a result of overall sound changes. From Rudes' data, -atat- has both reflexive and reciprocal meanings while -at- has reflexive and other functions similar to those operating in Mohawk. Among Rudes' examples are: 'it struck itself' in T: ʔ̃hat kʌ̃ hruk and in N: *untatenheerug*; 'your own ears' in T: θathʌ̃hnaʌh ʌ and '(you) listen' in N: *satuntatag* (ibid:36, 40).

Two additional Northern Iroquoian languages no longer spoken, Huron and Wyandot, also had reflexive and semi-reflexive morphemes, evidently with forms and functions similar to those in present-day Mohawk. Among Barbeau's examples from Wyandot, spoken until recently by Oklahoma descendants of aboriginal Huronian peoples of Ontario, are: *aʔ-y-at-rih* 'I-self-office hold' and *h-(a)tate-n-ate:-yaʔ* 'he-to self-hair burns' (1915:8, 13).

Another extinct Northern language, currently known as Laurentian (Lounsbury 1978:335), has some scanty sixteenth-century documentation added to journals of Jacques Cartier. J.A. Cuoq cites the following words from Cartier's lists and from nineteenth century Mohawk: 'look at me' (regarde-moi) in M: *takatkatho* and Laurentian: *quatgathoma* (1882:188). This example attests to realization of -at- in the latter language.

The fact that reflexive functions are old in Mohawk is shown by another work of Cuoq. In discussing reflexives in nineteenth century Mohawk, he notes that -atat- had both reflexive and reciprocal meanings and that the dualic -te- was used in reciprocals with non-singular subjects (1866:111). According to Cuoq, -at- functioned to render verbs passive but also occurred in deponent verbs ("verbes deponents") which have passive form but active meanings (ibid:112-113).

Cherokee: Southern Iroquoian is represented by Cherokee, spoken in North Carolina and also by descendants of the aboriginal population who now reside in Oklahoma. Lounsbury estimates branching of Cherokee from the Northern languages to have occurred approximately 3500-

4000 years ago (1978:334). Like Northern languages, Cherokee has reflexive and reciprocal markers. Reyburn describes a reflexive -adad-" which is positioned following a pronominal prefix and preceding a verb stem (1953:267). From his examples, -adad- seems to have reflexive meanings when the subject is singular and reciprocal meanings when the subject is dual or plural. For instance, *zadadeyohəsga* 'I am teaching myself'; *doznadadeyohəsga* 'another and I are teaching each other;' and *dandadeyohəsga* 'they teach each other' (ibid:268, 269, 272). In these examples, verbs with non-singular subjects contain a prefix d- which Reyburn earlier defines as 'plural' (ibid:178) and which is cognate to Mohawk dualic prefix -t- co-occurring with non-singular subjects + reflexive -atat- to render a reciprocal rather than reflexive meaning. Reyburn does not cite examples of -adad- and dual or plural subjects without the prefix -d-. Since he does not give any attention to this issue, it is not possible to know whether such co-occurrences may or may not exist, or to know how one would express reflexive meanings for non-singular subjects.

Reyburn's material reveals another form which has some reflexive as well as other functions. It is realized as -al-, -ali-, and -aɬ-. One contrasting pair is given: *zisdoyeha* 'I am shaving him' and *galisdoyeha* 'I am shaving myself' (ibid:273). Other examples of this prefix are: *gali:tuwoá* 'I am combing my hair;' *gali:eligá* 'I am happy;' and *haɬsgisgoí* 'you habitually dance' (ibid:175, 177).

In an analysis of Cherokee text material, Walker segments the prefix ali- (aɬ/__s) which he translates as 'with reference to oneself' (1975:214). It occurs in numerous examples with reflexive meanings including: *galisde:liha* 'I'm helping myself' (compare: *dejisde:liha* 'I'm helping them'); *agwaɬsdayɬhɬsga* 'I'm being eaten' (something is feeding itself on me); and *haɬsdɬ:tluga* 'sit down!' (ibid:223-224).

These Cherokee materials show clear resemblances to Mohawk reflexives, encompassing similarity in phonological form, structural position within verbs, and overlapping of semantic functions. The data obviously attest to the antiquity of reflexive marking in Iroquoian.

Caddoan: Since Chafe (1976, 1979) has suggested a historical connection between Iroquoian and Caddoan, it is relevant to turn briefly to Caddoan languages for

evidence of reflexive forms. In Chafe's discussion of Caddoan and Iroquoian relationships, he illustrates a correspondence between the Seneca semi-reflexive -at- and Caddo benefactive -t-.

In addition to phonological resemblances, Seneca semi-reflexive and Caddo benefactive share structural similarities since both occur as "leftmost constituents of verb bases" (1976:52). Both follow pronominal prefixes. Chafe further draws a parallel in their semantic and grammatical functions, i.e. they "affect transitivity in some of their occurrences, although in opposite ways. The Caddo 'benefactive' sometimes transitivizes bases otherwise intransitive, while the Seneca element sometimes has the opposite effect"(ibid) (see Mohawk examples above).

Among Chafe's Caddo examples of benefactives (-t- is sometimes realized as -n-, an alternation attested in Mohawk reflexives preceding the vowel -i-): *tʔu-t-háy-yúh-čah* 'I am going to tell to you;' *ku-'n-kiyuʔ-ah* '(he) killed for me;' and *ku-n-biʔn-čah* '(he) is going to wipe for me' (ibid:73). Chafe further states that Caddoan benefactive also has a possessive sense.[12] For instance, *hák-ku-t-cakah-ʔaʔ* 'a belt is present to me, I have a belt' (ibid: 74). The Mohawk example, *wahatelákwʌ* 'he kept it (he chose it for himself)' provides evidence of a benefactive function of the semi-reflexive.

In his review of the Caddoan family, Chafe (1979) reconstructs proto-Caddoan benefactive as -t- or -r-. It occurs in Northern Caddoan as -ut- or -ur- (eg. Wichita, see Rood 1976). Chafe suggests that the -u- was "originally part of an agreement prefix" and links this to Iroquoian semi-reflexive -at- (-an- or -ar-) which "may also have picked up its vowel from preceding agreement prefixes" (1979:230-231).

In sum, then, comparative evidence indicates possible connections among Iroquoian and Caddoan morphemes which share similarities, although not identities, in phonological shape, structural position within verbs and in semantic and grammatical functions. Although data are not definitive, they are suggestive and supportive of hypotheses concerning familial relationships. Increasing research in comparative reconstructions of grammatical and semantic categories will hopefully provide confirmation of these hypotheses in the future.

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NOTES

1 The data examined come from Akwesasne Mohawk, spoken at the Akwesasne (St. Regis) Reserve, located in northern New York State and in Canada in Ontario and Quebec. The Reserve has a total population of approximately 10,000, possibly half of whom are speakers of Mohawk with varying degrees of proficiency.

2 For discussion of the structure of Mohawk verbs and other details of grammatical and phonological features of the language, see Bonvillain 1972, A Grammar of Akwesasne Mohawk, and Beatty 1974, Mohawk Morphology. The latter is an analysis of the Kahnawake dialect.

3 There are two "feminine" pronominal prefixes in Mohawk. One denotes female humans and indefinite persons (feminine indefinite) while the other denotes female humans, animals and inanimate objects (feminine neuter). The choice of prefix in reference to female humans follows certain general rules of social etiquette, contingent upon specific age, status and affectional relationships. Idiosyncratic usage also is a factor.

4 The reflexive is realized in a number of allomorphic shapes: -atat-, -tat-, -atak-, -tak-, -atate-, -tate-, -atan- and -tan-. Similar allomorphy operates for the semi-reflexive: -at-, -t-, -ak-, -k-, -ate-, -te-, -an-, and -n-. Briefly, prefix-initial -a- is lost following vowels; an epenthetic -e- is added preceding consonants; -t → -k/__y; and -t → -n/__i. See Bonvillain 1972 and Beatty 1974 for additional details.

5 In morpheme segmentation, the following abbreviations are used for verbal affixes:

Prefixes: rfx-reflexive, srfx-semi-reflexive, fact-factual, fut-future, opt-optative, trns-translocative, du-dualic, rep-repetitive.

Suffixes: asp-aspect, bnf-benefactive, cs-causative, prog-progressive, cont-continuative, rvrs-reversive, dst-distributive.

Also, nom-nominalizer, int-interrogative.

Finally, note that /ʌ/ and /u/ are nasalized vowels.

6 Ambiguity between reflexive and reciprocal meanings is widespread in diverse languages. For example, Shibatani (1985:826) cites data from Spanish, Russian,

Quechua, Yavapai and Tetelcingo Nahuatl. Also, French se can have both senses when used with non-singular subjects. Finally, see Hollenbach for a discussion of ambiguity between "reciprocal and compositional readings" for the reciprocal construction in Copala Trique, a Mixtecan language of Mexico (1984:281-283).

7 See Shibatani (1985:827-828) for examples of use of reflexives to denote spontaneous events or states in Spanish, French, Russian and Quechua.

8 The Mohawk pattern of employing -at- for 'sell/lend' contrasts with some data from Japanese discussed by Watanabe (1984). In a paper on transitivity in Japanese, Watanabe noted that agents who give/sell "...have more control over events than the receiver, the buyer" (1984:246). Hence, in Japanese, constructions involving giving/selling employ nominative/accusative marking (typical of transitive clauses) on their two NPs while those involving receiving/buying take nominative/nominative marking (indicating lower transitivity). The distinction in Mohawk seems to stress a different semantic concept. Since -at- signals decreases in transitivity, its use in 'sell/lend' must be based on a different principle. Moreover, some verbs with -at- indicate subject's lack of control (eg. I had a misfortune, a misfortune happened to me). These facts suggest that the semantic basis for use of -at- in 'sell/lend' is more likely derived from concepts of movement as discussed in section 3.6.

Furthermore, Mohawk interest in movement related to prototypical place or direction is also attested in verbal prefixes called "cislocative" and "translocative." Among the complex contrastive uses of these prefixes is that the cislocative can signify movement toward prototypical place (i.e. ground level), eg. descend from upstairs, come up from a hole in the ground. In contrast, translocatives can denote movement away from ground level, eg. climb up into a tree, descend into a basement. See Bonvillain 1981 for further discussion.

9 In a comparative note, the prefix ber- in Bahasa Indonesian (cited in Hopper and Thompson 1980:278) has quite similar functions to Mohawk -at-. It is used to detransitivize verb stems (to hang something up ⟶ to be hanging), to mark on-going states (to bear fruit), and to express reflexive and reciprocal meanings (to exchange rings, clasp hands, shave oneself).

10 For discussion of phonological reconstructions for Proto-Iroquoian and subsequent sound changes in the

descendant languages, see Lounsbury 1978 and Mithun 1979.

[11] Note that the Northern morpheme -atat- is realized phonetically as -adat-/__C and -adad-/__V.

[12] In a study of Cavinena (a Tacanan language of Bolivia), Camp describes a reflexive construction which, in addition to reflexive and reciprocal meanings, also can be used without co-referential subjects and objects to express possessive, benefactive or locative roles (1985:55).

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